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EXAMINER
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SANDERS, AARON J

ART UNIT	PAPER NUMBER
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2168

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/806,964

Applicant(s)

PONESSA, STEVEN J.

Examiner

Aaron J. Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*. See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

This Office action has been issued in response to amendment filed 12 January 2007. Claims 1-36 are pending. Applicant's arguments have been carefully and respectfully considered, and some are persuasive, while others are not. Accordingly, objections and rejections have been removed where arguments were persuasive, but rejections have been maintained where arguments were not persuasive. Accordingly, claims 1-36 are rejected, and this action has been made FINAL, as necessitated by amendment.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 9-11, 12, 15, 19, 20-22, 25, 29, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Myers, Jr. et al., U.S. Pat. 6,959,268.

As per claims 1, 2, 5, 9-11, 12, 15, 19, 20-22, 25, 29, and 30, Myers, Jr. et al. teach:

1. A method for generating an information catalog relating to a business model, comprising the steps of:

accessing technical metadata from a data warehouse, said technical metadata being associated with data used by computer applications, said computer applications supporting

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business processes of the business model (See e.g. Fig. 4 and col. 3, lines 42-52, "At the base of the CEE is an object oriented database managing an associative object model (product model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise". The claimed "technical metadata" is the referenced "product model" that includes a Database Schema 231 of Fig. 2. The claimed "data warehouse" is the referenced Database 407 of Fig. 4 plus the Information Management Services (DBMS) 221 of Fig. 2 where, see col. 7, lines 7-34, "Data related to the system requirements are saved in the database 407, according to the product model, via the information transformation services 409". Fig. 4 clearly shows an association between the Data in Database 407 and the Tools used by 401, 403, and 405. The reference as a whole discusses "computer applications supporting business processes of the business model" as indicated by col. 7, lines 7-34, "FIG. 4 shows another conceptual view of the interaction between domain areas and the database, or integrated product data environment (IPDE) within the CEE" where CEE stands for "collaborative engineering environment");

accessing business metadata from a first source outside of the data warehouse, said business metadata comprising relationships between the business processes and the computer applications, said business metadata further comprising relationships between the computer applications and the technical metadata (See e.g. Fig. 2 where, see col. 6, lines 31-57, "The information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database" and Fig. 4 where Tools 402 and 404 access Data in Database 407. The claimed "business metadata" is the referenced Information Transformation Services 211 and is separate from the "data warehouse", i.e. 225 of Fig. 2);

accessing presentation metadata from a second source outside of the data warehouse, said second source being independent of the first source, said presentation metadata specifying a presentation format of the technical metadata and business metadata (See e.g. col. 5, line 44 to col. 6, line 2, “members interact with the CEE through familiar web interfaces and engineering tools with the presentation structured for the appropriate domain” and Fig. 6, Client Side 601. The claimed “presentation metadata” is the referenced “web interface”, as indicated by col. 10, line 47 to col. 11, line 21, “This presentation tier is implemented on the client-side and contains the appropriate domain user interface(s) and may contain a variety of client-side domain tools”. This “second source” is clearly outside the “data warehouse”, i.e. 621, and independent of the “first source”, i.e. 611. The claimed “presentation format” is the referenced Presentation 601 of Fig. 6 and the “presentation structured for the appropriate domain”);

applying the presentation metadata to the technical metadata and the business metadata to generate the information catalog, said information catalog comprising the technical metadata and the business metadata in accordance with the presentation format specified by the presentation metadata (See e.g. Fig. 7 and col. 12, lines 1-9, “the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The ‘home’ tab 32 contains some of the most basic information categories, such as the ‘process page’ 33, as shown in the body frame”. Fig. 7 shows an interface, i.e. an “applying”, of the “presentation metadata”, i.e. 601, to the “business metadata”, i.e. 611, and the “technical metadata”, i.e. 621, of Fig. 6); and

displaying, on an output device for an end user, a graphical interface representing the generated information catalog (See e.g. Figs. 7 and 8).

As per claims 2, 12, and 22, e.g. 2: The method of claim 1, wherein prior to the applying step the method further comprises parsing the technical metadata and the business metadata to form a source tree such that the source tree comprises the parsed business metadata and parsed technical metadata logically linked to each other (See e.g. Fig. 8 where, see col. 16, lines 34-53, “The product catalog 80 consists of all parts 81 that may be shared at the enterprise level. These parts may include both leaf-level parts 82, such as RAM memory chips, as well as complex assembly parts 83 and 84”);

wherein the applying step comprises traversing the source tree to form a result tree that includes the logically linked technical metadata and business metadata integrated with the presentation metadata (See e.g. Fig. 9 where, see col. 19, lines 30-57, “suppose the product being designed is a display workstation. Since the product does not exist yet and is possibly unique to this project, the first part defined by the engineer would be a hardware (HW) part 41 characterizing that product. Suppose that a necessary component of this workstation is a processing unit. The engineer searches the product catalog for a processing unit that fits his requirements constraints. Searching can be accomplished through either a full text search of information describing the part or through exercise of a search engine managing collections of customized descriptive information”); and

wherein the method further comprises transforming the result tree into the information catalog such that the information catalog comprises files formatted in accordance with the presentation metadata (See e.g. col. 12, line 54 to col. 13, line 3, “This was facilitated by use of

the Windchill™ tool's dynamic HTML generation mechanisms. When a user requests an HTML page via the browser, the hyperlink points to a template for the actual page that will be returned. The template contains Windchill™ tool 'script' calls that get replaced with dynamically generated HTML").

As per claims 5, 15, and 25, e.g. 5: The method of claim 1, wherein the information catalog comprises result files selected from the group consisting of Hypertext Markup Language (HTML) files, PDF files, ZIP files, and combinations thereof (See e.g. col. 12, line 54 to col. 13, line 3, "This was facilitated by use of the Windchill™ tool's dynamic HTML generation mechanisms. When a user requests an HTML page via the browser, the hyperlink points to a template for the actual page that will be returned. The template contains Windchill™ tool 'script' calls that get replaced with dynamically generated HTML").

As per claims 9, 19, and 29, e.g. 9: The method of claim 1, wherein the data warehouse is a relational database management system, and wherein the technical data is stored in tables of the relational database management system (See e.g. col. 11, lines 22-33, "The database tier 621 provides the persistence functionality using an Object Relational Database Management System (ORDBMS) 622 to store structured and unstructured data" and Fig. 6 which depicts tables within the ORDBMS).

As per claims 10, 20, and 30, e.g. 10: The method of claim 1, said method further comprising accessing additional technical data from the first source (See e.g. Fig. 5 which depicts more than one program/user accessing data); and wherein said applying step comprises applying the presentation metadata to the technical metadata, the business metadata, and the additional technical metadata to generate the information catalog (See e.g. Fig. 7 where, see col.

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12, lines 1-9, “the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The ‘home’ tab 32 contains some of the most basic information categories, such as the ‘process page’ 33, as shown in the body frame”).

11. A computer system comprising a processor and a computer readable memory unit coupled to the processor, said memory unit including an information catalog compiler that when executed by the processor implements a method for generating an information catalog relating to a business model, said method comprising the computer implemented steps of:

accessing technical metadata from a data warehouse, said technical metadata being associated with data used by computer applications, said computer applications supporting business processes of the business model (See e.g. Fig. 4 and col. 3, lines 42-52, “At the base of the CEE is an object oriented database managing an associative object model (product model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise”. The claimed “technical metadata” is the referenced “product model” that includes a Database Schema 231 of Fig. 2. The claimed “data warehouse” is the referenced Database 407 of Fig. 4 plus the Information Management Services (DBMS) 221 of Fig. 2 where, see col. 7, lines 7-34, “Data related to the system requirements are saved in the database 407, according to the product model, via the information transformation services 409”. Fig. 4 clearly shows an association between the Data in Database 407 and the Tools used by 401, 403, and 405. The reference as a whole discusses “computer applications supporting business processes of the business model” as indicated by col. 7, lines 7-34, “FIG. 4 shows another conceptual view of the



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interaction between domain areas and the database, or integrated product data environment (IPDE) within the CEE” where CEE stands for “collaborative engineering environment”);

accessing business metadata from a first source outside of the data warehouse, said business metadata comprising relationships between the business processes and the computer applications, said business metadata further comprising relationships between the computer applications and the technical metadata (See e.g. Fig. 2 where, see col. 6, lines 31-57, “The information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database” and Fig. 4 where Tools 402 and 404 access Data in Database 407. The claimed “business metadata” is the referenced Information Transformation Services 211 and is separate from the “data warehouse”, i.e. 225 of Fig. 2);

accessing presentation metadata from a second source outside of the data warehouse, said second source being independent of the first source, said presentation metadata specifying a presentation format of the technical metadata and business metadata (See e.g. col. 5, line 44 to col. 6, line 2, “members interact with the CEE through familiar web interfaces and engineering tools with the presentation structured for the appropriate domain” and Fig. 6, Client Side 601. The claimed “presentation metadata” is the referenced “web interface”, as indicated by col. 10, line 47 to col. 11, line 21, “This presentation tier is implemented on the client-side and contains the appropriate domain user interface(s) and may contain a variety of client-side domain tools”. This “second source” is clearly outside the “data warehouse”, i.e. 621, and independent of the “first source”, i.e. 611. The claimed “presentation format” is the referenced Presentation 601 of Fig. 6 and the “presentation structured for the appropriate domain”);

applying the presentation metadata to the technical metadata and the business metadata to generate the information catalog, said information catalog comprising the technical metadata and the business metadata in accordance with the presentation format specified by the presentation metadata (See e.g. Fig. 7 and col. 12, lines 1-9, “the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The ‘home’ tab 32 contains some of the most basic information categories, such as the ‘process page’ 33, as shown in the body frame”. Fig. 7 shows an interface, i.e. an “applying”, of the “presentation metadata”, i.e. 601, to the “business metadata”, i.e. 611, and the “technical metadata”, i.e. 621, of Fig. 6); and

displaying, on an output device for an end user, a graphical interface representing the generated information catalog (See e.g. Figs. 7 and 8).

21. A computer program product, comprising a computer usable medium having a computer readable program code embodied therein, said computer readable program code comprising an algorithm adapted to implement a method for generating an information catalog relating to a business model, said method comprising the steps of:

accessing technical metadata from a data warehouse, said technical metadata being associated with data used by computer applications, said computer applications supporting business processes of the business model (See e.g. Fig. 4 and col. 3, lines 42-52, “At the base of the CEE is an object oriented database managing an associative object model (product model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise”. The claimed “technical metadata” is the referenced “product model”

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that includes a Database Schema 231 of Fig. 2. The claimed “data warehouse” is the referenced Database 407 of Fig. 4 plus the Information Management Services (DBMS) 221 of Fig. 2 where, see col. 7, lines 7-34, “Data related to the system requirements are saved in the database 407, according to the product model, via the information transformation services 409”. Fig. 4 clearly shows an association between the Data in Database 407 and the Tools used by 401, 403, and 405. The reference as a whole discusses “computer applications supporting business processes of the business model” as indicated by col. 7, lines 7-34, “FIG. 4 shows another conceptual view of the interaction between domain areas and the database, or integrated product data environment (IPDE) within the CEE” where CEE stands for “collaborative engineering environment”);

accessing business metadata from a first source outside of the data warehouse, said business metadata comprising relationships between the business processes and the computer applications, said business metadata further comprising relationships between the computer applications and the technical metadata (See e.g. Fig. 2 where, see col. 6, lines 31-57, “The information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database” and Fig. 4 where Tools 402 and 404 access Data in Database 407. The claimed “business metadata” is the referenced Information Transformation Services 211 and is separate from the “data warehouse”, i.e. 225 of Fig. 2);

accessing presentation metadata from a second source outside of the data warehouse, said second source being independent of the first source, said presentation metadata specifying a presentation format of the technical metadata and business metadata (See e.g. col. 5, line 44 to col. 6, line 2, “members interact with the CEE through familiar web interfaces and engineering tools with the presentation structured for the appropriate domain” and Fig. 6, Client Side 601.

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The claimed “presentation metadata” is the referenced “web interface”, as indicated by col. 10, line 47 to col. 11, line 21, “This presentation tier is implemented on the client-side and contains the appropriate domain user interface(s) and may contain a variety of client-side domain tools”. This “second source” is clearly outside the “data warehouse”, i.e. 621, and independent of the “first source”, i.e. 611. The claimed “presentation format” is the referenced Presentation 601 of Fig. 6 and the “presentation structured for the appropriate domain”);

applying the presentation metadata to the technical metadata and the business metadata to generate the information catalog, said information catalog comprising the technical metadata and the business metadata in accordance with the presentation format specified by the presentation metadata (See e.g. Fig. 7 and col. 12, lines 1-9, “the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The ‘home’ tab 32 contains some of the most basic information categories, such as the ‘process page’ 33, as shown in the body frame”. Fig. 7 shows an interface, i.e. an “applying”, of the “presentation metadata”, i.e. 601, to the “business metadata”, i.e. 611, and the “technical metadata”, i.e. 621, of Fig. 6); and

displaying, on an output device for an end user, a graphical interface representing the generated information catalog (See e.g. Figs. 7 and 8).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 6-8, 13, 14, 16-18, 23, 24, 26-28, and 31-36 are rejected under 35 103(a) as being unpatentable over Myers, Jr. et al. as applied to claims 1, 2, 5, 9-11, 12, 20-22, 25, 29, and 30 above, in view of the Microsoft Computer Dictionary Fifth Edition, Microsoft Press, 2002, hereafter *Microsoft*.

As per claims 3, 13, and 23, Myers, Jr. et al. disclose the subject matter of the claims upon which the instant claims depend, but do not appear to disclose traversing the source tree with a “recursive descent algorithm”. However, *Microsoft* does make such a disclosure, see e.g. Recursion, “The ability of a routine to call itself”. Myers, Jr. et al. and *Microsoft* are analogous art because they both discuss electronic data manipulations. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Myers, Jr. et al. and *Microsoft* before him or her to traverse the source tree recursively. The motivation for combining these features is found in *Microsoft*, see e.g. Recursion, “Recursion enables certain algorithms to be implemented with small, simple routines”.

As per claims 6, 16, and 26, Myers, Jr. et al. disclose the subject matter of the claim upon which the instant claims depend, but do not appear to disclose storing the business metadata in XML files. However, *Microsoft* does make such a disclosure, see e.g. XML, “a condensed form of SGML”. Myers, Jr. et al. and *Microsoft* are analogous art because they both discuss electronic data manipulations. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Myers, Jr. et al. and *Microsoft* before him or her to use

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XML. The motivation for combining these features is found in *Microsoft*, see e.g. XML, "XML lets Web developers and designers create customized tags that offer greater flexibility in organizing and presenting information than is possible with the older HTML document coding system".

As per claims 7, 17, and 27, Myers, Jr. et al. disclose the subject matter of the claims upon which the instant claims depend, but do not appear to disclose including well-formed HTML within the XML files. However, *Microsoft* does make such a disclosure, see e.g. Well-formed, "An XML or HTML document that follows all the rules of syntax outlined in the protocol's specification". Myers, Jr. et al. and *Microsoft* are analogous art because they both discuss electronic data manipulations. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Myers, Jr. et al. and *Microsoft* before him or her to use well-formed HTML within the XML files. The motivation for combining these features is found in *Microsoft*, see e.g. Well-formed, "A well-formed XML or HTML document can be read by all Web browsers without difficulty".

As per claims 8, 18, and 28, Myers, Jr. et al. disclose the subject matter of the claim upon which the instant claims depend, but do not appear to disclose storing the presentation metadata in XSL files. However, *Microsoft* does make such a disclosure, see e.g. XSL, "A World Wide Web Consortium (W3C) standard stylesheet language for XML documents". Myers, Jr. et al. and *Microsoft* are analogous art because they both discuss electronic data manipulations. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the

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teachings of Myers, Jr. et al. and *Microsoft* before him or her to use XSL. The motivation for combining these features is found in *Microsoft*, see e.g. XSL, "XSL determines how data in an XML document is displayed on the Web. XSL controls what data will be displayed, in what format, and in what type size and style".

As per claims 4, 14, 24, and 31-36, Myers, Jr. et al. disclose the subject matter of the claims upon which the instant claims depend, but do not appear to disclose displaying the catalog information in frames. However, *Microsoft* does make such a disclosure, see e.g. Frame, "A rectangular section of the page displayed by a Web browser that is a separate HTML document from the rest of the page. Web pages can have multiple frames, each of which is a separate document. Associated with each frame are the same capabilities as for an unframed Web page, including scrolling and linking to another frame or Web site". Myers, Jr. et al. and *Microsoft* are analogous art because they both discuss displaying Web documents. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Myers, Jr. et al. and *Microsoft* before him or her to display the catalog using frames. The motivation for combining these features is found in *Microsoft*, see e.g. Frames, "Frames... are often used as a table of contents for one or more HTML documents on a Web site".

31. A graphical interface of a computer system, comprising a package list frame, an object list frame driven by the package list frame, and a detail frame driven by the object list frame, said computer system comprising a processor and a computer readable memory unit coupled to the processor (See e.g. Myers, Jr. et al. col. 9, lines 52-67, "In a hardware context these elements could be simple parts such as memory chips or complex parts such as a

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microprocessor (which includes multiple simple parts), or assemblies such as a commercial server”);

said memory unit including an information catalog compiler that when executed by the processor implements a method for generating an information catalog relating to a business model (See e.g. Myers, Jr. et al. Fig. 9);

said graphical interface adapted to being navigated by an end user of the method (See e.g. Myers, Jr. et al. Fig. 7);

said method comprising generating the information catalog by applying presentation metadata to technical metadata and business metadata such that the information catalog comprises the technical metadata and the business metadata in accordance with a presentation format specified by the presentation metadata (See e.g. Myers, Jr. et al. Fig. 7 where, see col. 12, lines 1-9, “the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The ‘home’ tab 32 contains some of the most basic information categories, such as the ‘process page’ 33, as shown in the body frame” where, see e.g. Myers, Jr. et al. Fig. 2 where, see col. 6, lines 31-57, “The information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database” and Myers, Jr. et al. Fig. 4 where Tools 402 and 404 access Data in Database 407. Fig. 7 shows an interface, i.e. an “applying”, of the “presentation metadata”, i.e. 601, to the “business metadata”, i.e. 611, and the “technical metadata”, i.e. 621, of Fig. 6);



said technical metadata being associated with data used by computer applications supporting business processes of the business model (See e.g. Fig. 4 and col. 3, lines 42-52, "At the base of the CEE is an object oriented database managing an associative object model (product model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise". The claimed "technical metadata" is the referenced "product model" that includes a Database Schema 231 of Fig. 2. The claimed "data warehouse" is the referenced Database 407 of Fig. 4 plus the Information Management Services (DBMS) 221 of Fig. 2 where, see col. 7, lines 7-34, "Data related to the system requirements are saved in the database 407, according to the product model, via the information transformation services 409". Fig. 4 clearly shows an association between the Data in Database 407 and the Tools used by 401, 403, and 405. The reference as a whole discusses "computer applications supporting business processes of the business model" as indicated by col. 7, lines 7-34, "FIG. 4 shows another conceptual view of the interaction between domain areas and the database, or integrated product data environment (IPDE) within the CEE" where CEE stands for "collaborative engineering environment");

said package list frame comprising means for selecting applications of said computer applications and selectable associated table creators of tables relating to the technical metadata;

said object list frame comprising means for selecting tables driven by a computer application and associated table creator selected from the package list frame;

said detail frame comprising means for displaying table information relating to a table selected from the object list frame.

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32. The graphical interface of claim 31, wherein the table information is an overview of the business model.

33. The graphical interface of claim 32, wherein the overview includes processes of the business processes.

34. The graphical interface of claim 32, wherein the overview includes applications of the computer applications.

35. The graphical interface of claim 31, wherein the package list frame, object list frame, and a detail frame are generated by execution of files of the information catalog.

36. The graphical interface of claim 35, wherein the files are selected from the group consisting of Hypertext Markup Language (HTML) files, PDF files, ZIP files, and combinations thereof (See e.g. Myers, Jr. et al. col. 12, line 54 to col. 13, line 3, "This was facilitated by use of the Windchill™ tool's dynamic HTML generation mechanisms. When a user requests an HTML page via the browser, the hyperlink points to a template for the actual page that will be returned. The template contains Windchill™ tool 'script' calls that get replaced with dynamically generated HTML").

### ***Response to Arguments***

As per Applicant's arguments that Myers, Jr. et al. do not anticipate any limitation of claims 1, 11, and 21, the Examiner respectfully disagrees, and has further explained the rejections above and again here. In examining the instant claims, the Examiner applied the broadest reasonable interpretations to the limitations.

In rejecting the first limitation of claims 1, 11, and 21, the Examiner cited Fig. 4 and col. 3, lines 42-52, "At the base of the CEE is an object oriented database managing an associative object model (product model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise". The claimed "technical metadata" is the referenced "product model" that includes a Database Schema 231 of Fig. 2. The claimed "data warehouse" is the referenced Database 407 of Fig. 4 plus the Information Management Services (DBMS) 221 of Fig. 2 where, see col. 7, lines 7-34, "Data related to the system requirements are saved in the database 407, according to the product model, via the information transformation services 409". Fig. 4 clearly shows an association between the Data in Database 407 and the Tools used by 401, 403, and 405. The reference as a whole discusses "computer applications supporting business processes of the business model" as indicated by col. 7, lines 7-34, "FIG. 4 shows another conceptual view of the interaction between domain areas and the database, or integrated product data environment (IPDE) within the CEE" where CEE stands for "collaborative engineering environment".

In rejecting the second limitation of claims 1, 11, and 21, the Examiner cited Fig. 2 where, see col. 6, lines 31-57, "The information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database" and Fig. 4 where Tools 402 and 404 access Data in Database 407. The claimed "business metadata" is the referenced Information Transformation Services 211 and is separate from the "data warehouse", i.e. 225 of Fig. 2.

In rejecting the third limitation of claims 1, 11, and 21, the Examiner cited col. 5, line 44 to col. 6, line 2, "members interact with the CEE through familiar web interfaces and engineering

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tools with the presentation structured for the appropriate domain” and Fig. 6, Client Side 601.

The claimed “presentation metadata” is the referenced “web interface”; as indicated by col. 10, line 47 to col. 11, line 21, “This presentation tier is implemented on the client-side and contains the appropriate domain user interface(s) and may contain a variety of client-side domain tools”.

This “second source” is clearly outside the “data warehouse”, i.e. 621, and independent of the “first source”, i.e. 611. The claimed “presentation format” is the referenced Presentation 601 of Fig. 6 and the “presentation structured for the appropriate domain”.

In rejecting the fourth limitation of claims 1, 11, and 21, the Examiner cited Fig. 7 and col. 12, lines 1-9, “the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The ‘home’ tab 32 contains some of the most basic information categories, such as the ‘process page’ 33, as shown in the body frame”. Fig. 7 shows an interface, i.e. an “applying”, of the “presentation metadata”, i.e. 601, to the “business metadata”, i.e. 611, and the “technical metadata”, i.e. 621, of Fig. 6.

As per Applicant’s arguments that Myers, Jr. et al. do not teach each limitation of claim 31, the Examiner respectfully disagrees, and has further explained the rejections above and again here.

In rejecting the limitation “said method comprising generating the information catalog by applying presentation metadata to technical metadata and business metadata” of claim 31, the Examiner cited Fig. 7 where, see col. 12, lines 1-9, “the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent

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high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The 'home' tab 32 contains some of the most basic information categories, such as the 'process page' 33, as shown in the body frame" where, see e.g. Myers, Jr. et al. Fig. 2 where, see col. 6, lines 31-57, "The information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database" and Myers, Jr. et al. Fig. 4 where Tools 402 and 404 access Data in Database 407. Fig. 7 shows an interface, i.e. an "applying", of the "presentation metadata", i.e. 601, to the "business metadata", i.e. 611, and the "technical metadata", i.e. 621, of Fig. 6.

In rejecting the limitation "said technical metadata being associated with data used by computer applications supporting business processes of the business model" the Examiner cited Fig. 4 and col. 3, lines 42-52, "At the base of the CEE is an object oriented database managing an associative object model (product model) for providing a persistent understanding of product and program information, assets and tools available in the enterprise". The claimed "technical metadata" is the referenced "product model" that includes a Database Schema 231 of Fig. 2. The claimed "data warehouse" is the referenced Database 407 of Fig. 4 plus the Information Management Services (DBMS) 221 of Fig. 2 where, see col. 7, lines 7-34, "Data related to the system requirements are saved in the database 407, according to the product model, via the information transformation services 409". Fig. 4 clearly shows an association between the Data in Database 407 and the Tools used by 401, 403, and 405. The reference as a whole discusses "computer applications supporting business processes of the business model" as indicated by col. 7, lines 7-34, "FIG. 4 shows another conceptual view of the interaction between domain areas

and the database, or integrated product data environment (IPDE) within the CEE” where CEE stands for “collaborative engineering environment”.

As per Applicant’s argument that Myers, Jr. et al. and *Microsoft* do not anticipate certain limitations of claim 31, the Examiner respectfully disagrees. With respect to the application of presentation metadata, technical metadata, and business metadata, the Examiner has further explained the rejections above. With respect to Applicant’s argument that *Microsoft* does not teach the specific package list frame, object list frame, and detail frame, it is the Examiner’s view that this is unnecessary. Myers, Jr. et al. disclose Applicant’s claimed invention except for a user interface utilizing frames. Therefore, given the desirability of frames, it would be obvious to use them as Applicant claims.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron J. Sanders whose telephone number is 571-270-1016. The examiner can normally be reached on M-Th 8:00a-5:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vo Tim can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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